REMARKS

The claims now under examination are 12 and 14-17 (excluding the non-elected claims 1-11).

The examiner's criticism of the one of the references cited in applicants' IDS will be corrected in due course.

The present claims

Applicants agree with the examiner's position that mutants of claim 14 to 15 are derived from the P450 monooxygenase of B. megaterium. Cf, inter alia, page 2, lines 39, et seq.

Claim 12 now provides for the enzymatic production of C_8-C_{12} **subterminally** hydroxylated aliphatic carboxylic acid. See, inter alia page 1, lines 17-18 and 34 for support. Claim 13 has been deleted to prevent overlap or redundancy.

Claim 12 is now in independent form as kindly suggested by the examiner. Claim 13 necessarily includes all the limitations of claim 12.

Claim 14 has been amended to set forth SEQ ID 2. See, e.g., the sequence listing, in particular at page 12, middle ("<210> 2").

Accordingly, the objections and rejections under 35 USC § 112, 2d paragraph, rejections have been overcome.

The rejections under 35 USC § 102(b)

Original claims 12, 13 and 15-17 were rejected over Oliver et al. and claims 12-14, 16 and 17 over Graham-Lorence et al., both of which references were cited by applicants in their IDS.

As regards the claims as presently amended, neither reference anticipates, within the meaning of § 102(b).

Oliver et al. is concerned with single mutations in cytochrome P450 BM-3 monooxygenase which, according to the reference, produce a mutant which almost exclusively catalyzes hydroxylation at the ω-position of the laurate, i.e., it catalyzes hydroxylation ot the fatty acid at the **terminal** position. This is inapposite to applicants' present claims which require **subterminal** hydroxylation.

Graham Lorence et al. is concerned with single mutations of the P450 BM-3 monooxygenase which converts the enzyme into an arachidonic acid epoxygenase. Arachidonic acid contains **20** carbon atoms whereas applicants claims or limited to C_8-C_{12} acids. Accordingly applicants' invention is not anticipated by the reference.

Nor do either of the reference present the necessary **motivation** to make out a prima facie case for obviousness.

Conclusion

For the foregoing reasons, applicants respectfully solicit allowance of this application.

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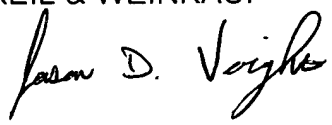
any excess fees to such deposit account.

Respectfully submitted,
KEIL & WEINKAUF



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